APPENDIX

Please amend the specification as follows:

Please amend the third paragraph on page 2 as follows:

The FLPM process 20 include both time-critical and non-time-critical functions that relate to the processing of frames between the high-level functions associated with the MLME process 18 and the low-level functions associated with the FTM process 22. The time critical functions may need to be carried out on the scale of approximately 30-40 microseconds as compared with the smallest time scales in the system, which are of the order of 16 microseconds, for the separation between frames. These may include operations related to [interface] interframe spacing and timing, retrying frames, encrypting frames, decrypting frames, filtering frames, receiving acknowledgements, and transmitting beacons. By contrast, the non-time-critical functions may only need to be carried out on the scale of milliseconds or even seconds. These may include operations related to association responses and requests, authentications, collecting and managing network statistics, and system reconfigurations due to roaming.

Claims 1-2 are amended as follows:

1. (Amended) A hardware system for performing [MAC (M]media [A]access [C]control[)] functions between a host [CPU C]central [P]processing [U]unit and a [N]network, the system comprising:

a [bus] buffer interface that sends frames to the host [CPU] central processing unit and receives frames [form] from the host central processing unit [CPU];

a frame transmitter that includes a transmit buffer [Rx state machine] that receives frames from the buffer interface and sends frames to the network;

a[n] frame receiver that includes a receive buffer [Rx state machine] that receives frames from the network and sends frames to the buffer interface; and

[a Tx buffer that receives frames from the bus interface and sends frames to the Tx state machine;

an Rx buffer that receives frames from the Rx state machine and sends frames to the buffer interface;]

an encryption/decryption block that sends and receives frames between the [Tx] transmit buffer and the [Rx] receive buffer.

a [CRC (C]cyclic [R]redundancy [C]code[)] block that receives frames from the [Rx] receive state machine and the [Tx] transmit buffer and sends frames to the [Tx] transmit state machine; and

a timer block that controls timing for frames that are respectively sent[ds] from and received[s] by [frames from the components of] the system.

2. (Amended) A method for processing frames [in a MAC Layer] from a network to a host in a media access control layer with hardware operations, the hardware operations comprising:

receiving an incoming frame from the network; and

processing the incoming frame [FLPM (Frame Level Protocol Manager)] for time-critical functions[;] the time critical functions; including:

sending an outgoing frame corresponding to the incoming frame to the host;

formulating time-critical responses;

accumulating statistics; and

updating a media access control state.

[from the act of Processing the incoming frame for FLPM time-critical functions, sending an outgoing frame to the host.]

The following claims 3-31 are added as new claims.

3. (New) The hardware system according to claim 1 wherein the frame transmitter includes a transmit state machine, the frame receiver includes a receive state machine, and further including:

a cyclic redundancy code block that receives frames from the receive state machine and the transmit buffer and sends frames to the transmit state machine; and

a timer block that controls timing for frames that are respectively sent from and received by the system.

4. (New) The hardware system according to claim 1 wherein the frame receiver further includes a filtering block for filtering frames.

5. (New) The hardware system according to claim 1 wherein the frame receiver further includes a retry operations block for determining when retransmission of a particular frame is needed.

6. (New) The hardware system according to claim 1 wherein the frame transmitter includes an acknowledgement block for determining that a particular frame was anticipated and sending an acknowledgement message corresponding thereto.

7. (New) The hardware system according to claim 1 wherein the frame transmitter further includes a special frames generation block.

8. (New) The hardware system according to claim 7 wherein the special frames generation block includes means for generating beacons.

9. (New) The hardware system according to claim 1 further including a timer block that controls timing for frames that are sent from and received by the system.

10. (New) The hardware system according to claim 9 wherein the frame transmitter includes a transmit state machine, the frame receiver includes a receive state machine, and further including:

a cyclic redundancy code block that receives frames from the receive state machine and the transmit buffer and sends frames to the transmit state machine.

11. (New) The hardware system according to claim 9 wherein the frame receiver further includes a filtering block for filtering frames.

12. (New) The hardware system according to claim 9 wherein the frame receiver further includes a retry operations block for determining whether retransmission of a particular frame is needed.

13. (New) The hardware system according to claim 9 wherein the frame transmitter includes an acknowledgement block for determining that a particular frame was anticipated and sending an acknowledgement message corresponding thereto.

14. (New) The hardware system according to claim 9 wherein the frame transmitter further includes a special frames generation block.

15. (New) The hardware system according to claim 14 wherein the special frames generation block includes means for generating beacons.

16. (New) A hardware system for performing media access control functions between a host central processing unit and a network, the system comprising:

a buffer interface that sends frames to the host central processing unit and receives frames from the host central processing unit;

a frame transmitter that includes a transmit buffer that receives frames from the buffer interface and sends frames to the network;

a frame receiver that includes a receive buffer that receives frames from the network and sends frames to the buffer interface; and

a timer block that controls timing for frames that are sent from and received by the system, the timer block thereby controlling interframe spacing and timing.

17. (New) The hardware system according to claim 16 wherein the frame transmitter includes a transmit state machine, the frame receiver includes a receive state machine, and further including:

a cyclic redundancy code block that receives frames from the receive state machine and the transmit buffer and sends frames to the transmit state machine.

18. (New) The hardware system according to claim 16 wherein the frame receiver further includes a filtering block for filtering frames.

19. (New) The hardware system according to claim 16 wherein the frame receiver further includes a retry operations block for determining whether retransmission of a particular frame is needed.

20. (New) The hardware system according to claim 16 wherein the frame transmitter includes an acknowledgement block for determining that a particular frame was anticipated and sending an acknowledgement message corresponding thereto.

21. (New) The hardware system according to claim 16 wherein the frame transmitter further includes a special frames generation block.

22. (New) The hardware system according to claim 21 wherein the special frames generation block includes means for generating beacons.

23. (New) The hardware system according to claim 16 further including an encryption/decryption block that sends and receives frames between the transmit buffer and the receive buffer.

24. (New) The method according to claim 2 wherein the time critical function of formulating time-critical responses includes formulating an outgoing response frame for transmission to the network.

25. (New) The method according to claim 24 wherein the time critical function of formulating an outgoing response frame includes transmitting the outgoing response frame to the network.

26. (New) The method according to claim 25 wherein the hardware operations for transmitting the outgoing response frame include generating a special frame.

27. (New) The method according to claim 26 wherein the special frame includes a beacon.

28. (New) The method according to claim 26 wherein the hardware operation of formulating an outgoing response frame includes receiving an incoming frame from the host central processing unit corresponding to the outgoing response frame.

29. (New) The method according to claim 2 wherein the time critical functions implemented by hardware operations include decrypting the incoming frame.

30. (New) The method according to claim 2 wherein the time critical functions implemented by hardware operations include determining whether retransmission of a particular frame is needed.

31. (New) The method according to claim 2 wherein the time critical functions implemented by hardware operations include determining whether a particular frame was anticipated and sending an acknowledgement message corresponding thereto.